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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,323	09/30/2003	Ulf Bodin	1510-1038-2	3892

466 7590 01/24/2008

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ART UNIT	**PAPER NUMBER**
2144	

MAIL DATE	DELIVERY MODE
01/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/673,323	BODIN ET AL.	
	Examiner	Art Unit	
	Mohamed Ibrahim	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 24-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22 and 24-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 and16-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 1-13, the claims appear to recite an abstract idea, since the claimed steps do nothing more setup a threshold for each link by choosing the level of threshold, which would amount to only thoughts. For a method claim to be statutory, it must result in a useful, concrete and tangible result. The instant claim has useful and concrete result, but it is lacking tangible result. To remedy the lack of tangible result, the claim should be amended to include step for either sending/transmitting, storing or displaying the result of the instant claim.

Regarding claims 16-17, the language of claims 16-17 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

The applicant(s) claim "a computer program product" but does not define within the body of the claim the hardware in which the invention runs. Thus, absent recitation of

the server or some other hardware, claim 16-17 are not limited to a tangible embodiment, instead being sufficiently broad to encompass software, per se as evidenced by paragraph [0098 or page 19] of the specification for the instant application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 18-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Davies et al. (Davies), U. S. Patent No. 6839767.

Regarding claim 18, Davies discloses a node in a network (see e.g. col. 7 lines 153-65; host machine or server or PC), said node
comprising admission controlling means (14;14') adapted to perform admission control in order to offer assurances on forwarding quality in networks (see e.g. fig. 1 item 20 and col. 8 line 59-col. 9 line 2; admission controller), said admission controlling means (14;14') comprising threshold setting means (16;16') adapted to set a threshold for each link, said threshold defining a maximum sum of forwarding resources requested by

applications for their application data flows (see e.g. fig. 5 and col. 10 line 56-col. 11 line 21; threshold setter), ADFs, on the link, characterised in that said threshold setting means (16;16') further is adapted to utilise knowledge about multiplexing properties of the ADFs on each link and knowledge about forwarding resources of the link when choosing the level of said threshold (see e.g. col. 12 line 51-col. 13 line 4; the forwarding of messages depends of the estimation of the current load of the network resource).

Regarding claim 19, Davies discloses that the threshold setting means (16;16') further is adapted to utilise knowledge about the traffic mix of different ADFs on each link when choosing the levels of said thresholds (see e.g. col. 5 line 58-col. 6 line 10).

Regarding claim 20, Davies discloses that the admission controlling means (14) comprises estimating means (18) connected to the threshold setting means (16), said estimating means (18) being adapted to retrieve results from preparatory tests of recorded samples of ADFs expected on a link and estimate multiplexing properties of these ADFs off-line, said estimating means (18) further being adapted to forward the estimation to the threshold setting means (16), which is adapted to use the estimation for choosing the level of said threshold (see e.g. col. 7 lines 15-38).

Regarding claim 21, Davies discloses that the estimating means (18) further is adapted to use assumptions on user behaviour and application configurations for the estimation

(see e.g. col. 7 lines 25-30).

Regarding claim 22, Davies discloses that the threshold setting means (16') is adapted to set an initial threshold for each link and in that the admission controlling means (14') comprises a measurement requesting means (20), which is connected to the threshold setting means (16') and adapted to retrieve measurements from a measuring means (22) in the network, which is adapted to repeatedly, during usage, measure multiplexing properties of aggregated ADFs online on each link, and in that the threshold setting means (16') is adapted to use these measurements to dynamically adapt the thresholds during usage (see e.g. col. 12 line 51-col. 13 line 4).

Regarding claim 24, Davies discloses that the measurement requesting means (20) is adapted to retrieve measurements performed at least two different rates (see e.g. col. 8 lines 34-59).

Regarding claim 25, Davies discloses that the measurement requesting means (20) is adapted to retrieve a measurement performed at a first rate, which is equal to or lower than the amount of allocated resources on the link and retrieve a measurement performed at a second rate, which is lower than the first rate (see e.g. col. 11 lines 22-32).

Regarding claim 26, Davies discloses that the measurement requesting means (20) is

adapted to retrieve a measurement performed at a second rate, which is dependent on the reserved resources on the link and the threshold (see e.g. col. 8 lines 34-58).

Regarding claim 27, Davies discloses that the threshold setting means (16') is adapted to increase the threshold when both the measurement at the first and second rates indicate lower loss-rates than what is assured; decrease the threshold when both the measurement at the first and second rate indicate higher loss-rates than what is assured; and maintaining the threshold when the measurement at the second rate indicates higher loss-rate than assured and the measurement at the first rate indicates lower loss-rate than assured (see e.g. col. 12 lines 19-37).

Regarding claim 28, Davies discloses that the measurement requesting means (20) comprises a measurement threshold means (24) adapted to define a level of forwarding capacity reservations on the link above which the measurements should be requested (see e.g. col. 11 lines 4-21).

Regarding claim 29, Davies discloses that the measurement threshold means (24) is adapted to increase the measurement threshold in steps but not over a predefined maximum level which is lower than the level of allocated resources of the link when the measurement at the second rate indicates higher loss-rate than assured and the measurement at the first rate indicates lower loss-rate than assured (see e.g. col. 11 lines 34-58).

Regarding claim 30, Davies discloses that the measuring requesting means (20) is adapted to retrieve a measurement at a third rate, which is higher than the first rate but equal to or lower than the allocated resources on the link when the measurement at the first rate indicates a higher loss rate than assured, the loss rate measured at the third rate being indicative of if it is necessary to pre-empt ADFs from the link or if it is enough to prevent new ADFs from entering the link (see e.g. col. 11 lines 33-58 and col. 12 line 51-col. 13 line 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al. (Davies), U. S. Patent No. 6839767 in view of Krishnan et al. (Khrishnan), U. S. Patent No. 6366559.

Regarding claim 1, Davies discloses a method for performing admission control in order to offer assurances on forwarding quality in networks comprising the steps of: setting a

threshold for each link where said threshold defines a maximum sum of forwarding resources requested by applications for their application data flows, ADFs, on the link (see e.g. fig. 5, col. 5 lines 3-37 and col.10 line 56-col. 11 line 3; a system for assuring admission control quality that utilizes threshold is provided), characterised by choosing the level of said threshold by utilising knowledge about multiplexing properties of the ADFs on each link and by utilising knowledge about the forwarding resources of the links (see e.g. col. 9 lines 23-32 and col. 10 lines 7-27; admission controller makes decision on whether or not to forward message from a sender via the link which depend of the bandwidth and flow of data) .

Although Davies discloses the invention substantially as claimed, it does not explicitly disclose controlling admission to each link based on the threshold.

Khrishnan teaches a system for traffic admission control and routing in a communication network that multiplexes different traffics onto a link. The system determines admission costs for each link based on the cost threshold (see e.g. figs.4, 5 and col. 5 lines 15-32 and col. 6 lines 19-42). At the time of the invention it would have been obvious to a person of ordinary skills in the art to combine the teachings of Khrishnan with that of Davies. Motivation for doing so would have been to achieve multiplexing efficiency by utilizing traffic admission control techniques (see Krishnan col. 2 lines 3-16).

Regarding claim 2, Davies-Khrishnan teaches the further step of utilising knowledge about the traffic mix of different ADFs on each link when choosing the levels of said

thresholds (see e.g. col. 5 line 58-col. 6 line 10).

Regarding claim 3, Davies-Khrishnan teaches by estimating multiplexing properties of different ADFs off-line, said estimation being based on results from preparatory tests of recorded samples of ADFs, which are expected on a link and use this estimation when choosing the level of said threshold (see e.g. col. 7 lines 15-38).

Regarding claim 4, Davies-Khrishnan teaches using assumptions on user behaviour and application configurations for the estimation (see e.g. col. 7 lines 25-30).

Regarding claim 5, Davies-Khrishnan teaches setting an initial threshold for each link and repeatedly, during usage, measuring multiplexing properties of aggregated ADFs online on each link and use these measurements to dynamically adapt said thresholds during usage (see e.g. col. 12 line 51-col. 13 line 4).

Regarding claim 6, Davies-Khrishnan teaches choosing the initial threshold estimating multiplexing properties of different ADFs off-line, said estimation being based on results from preparatory tests of recorded samples of ADFs, which are expected on a link and use this estimation when choosing the level of said threshold (see e.g. col. 7 lines 30-38).

Regarding claim 7, Davies-Khrishnan teaches performing the measurements at least two different rates (see e.g. col. 8 lines 34-59).

Regarding claim 8, Davies-Khrishnan teaches measuring at a first rate, which is equal to or lower than the amount of allocated resources on the link and measuring at a second rate, which is lower than the first rate (see e.g. col. 11 lines 22-32).

Regarding claim 9, Davies-Khrishnan teaches wherein the second rate is dependent on the reserved resources on the link and the threshold (see e.g. col. 8 lines 34-58).

Regarding claim 10, Davies-Khrishnan teaches increasing the threshold when both the measurement at the first and second rates indicate lower loss-rates than what is assured (see e.g. col. 11 lines 33-58); decreasing the threshold when both the measurement at the first and second rates indicate higher loss-rates than what is assured; and maintaining the threshold when the measurement at the second rate indicates higher loss-rate than assured and the measurement at the first rate indicates lower loss-rate than assured (see e.g. col. 12 lines 19-37).

Regarding claim 11, Davies-Khrishnan teaches introducing a measurement threshold, which defines a level of forwarding capacity reservations on the link above which the measurements are initiated (see e.g. col. 11 lines 4-21).

Regarding claim 12, Davies-Khrishnan teaches increasing the measurement threshold in steps but not over a predefined maximum level which is lower than the level of allocated resources of the link when the measurement at the second rate indicates higher loss-rate than assured and the measurement at the first rate indicates lower loss-rate than assured (see e.g. col. 11 lines 34-58).

Regarding claim 13, Davies-Khrishnan teaches measuring at a third rate, which is higher than the first rate but equal to or lower than the allocated resources of the link when the measurement at the first rate indicates a higher loss rate than assured, the loss rate measured at the third rate being indicative of if it is necessary to pre-empt ADFs from the link or if it is enough to prevent new ADFs from entering the link (see e.g. col. 11 lines 33-58 and col. 12 line 51-col. 13 line 4).

Regarding claim 14, the limitations of this claim is substantially the same as that of claim 1 and thus is rejected for the same rationale in the rejection of claim 6.

Regarding15, Davies-Khrishnan teaches characterised in that it comprises or is connectable to a measuring means adapted to perform measurements on the links (see e.g. col. 12 lines 7-18).

Regarding claims 16-17, the limitations of these claims have already been addressed (see claim 1 and 101 rejection, above).

Response to Arguments

6. Applicant's arguments filed 11/02/2007 have been fully considered but they are not persuasive.

7. Applicant argues, in substance that Davies does not disclose the utilization of level when setting admission control threshold.

8. In response to Applicant's argument, indeed Davies disclose admission control system that is based on threshold which is adjusted to the traffic of network. The system of Davies includes setting up admission control for traffic links and determining the level of admission via threshold (see e.g. fig. 5 and col. 10 line 56-col. 11 line 21; threshold setter). Thus indeed Davies meet the scope of the claim limitation as currently claimed.

9. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant employs broad language, which includes the use of word, and phrases, which have broad meanings in the art. In addition, Applicant has not argued any narrower interpretation of the claim language, nor amended the claims significantly enough to construe a narrower meaning to the limitations. As the claims breadth allows multiple interpretations and meanings, which are broader than Applicant's disclosure, the Examiner is forced to interpret the claim limitations as broadly and as reasonably possible, in determining patentability of the disclosed invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.1993).

Thus it is advised that, in order to further expedite the prosecution of the application in response to this action, Applicant should amend the base claims to describe in more narrow detail the true distinguishing features of Applicant's claim invention

11. Applicant has had an opportunity to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See In re Prater and Wei, 162 USPQ 541 (CCPA 1969), and MPEP 2111.

12. Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response, and reiterates the need for the Applicant to more clearly and distinctly defines the claimed invention.

Prior Art of Record

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to form PTO-892 (Notice of Reference Cited) for a list of relevant prior art.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Ibrahim whose telephone number is 571-270-1132. The examiner can normally be reached on Monday through Friday from 7:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn, Jr. can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MI/

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER